NEW

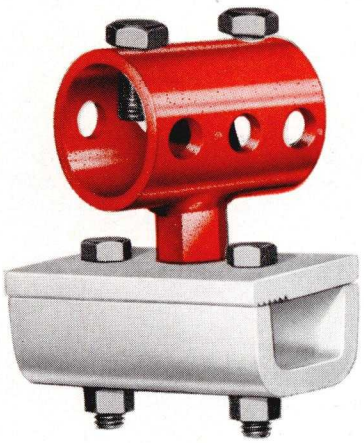
UNIVERSAL CLAMPS TENSION PLATES

Slash autobody repair time with these Porto-Power tools

Now spread tons of pressure across the damaged area to remove dents and creases from sheet metal. Speed roughouts faster than ever before . . . beat the tough problems in repairing today's modern cars with fancy fins, curves, fewer jacking points. This new method of repair exerts tension across damaged area. Dents, creases return to original contour in a fraction of the time formerly taken with old fashioned methods. Universal Clamps and Tension Plates can be used on every sheet metal body section . . . door, cowl, panels, hood, roof, fender and pillars!

Speed roughout operations . . . Cut metal finishing time with . . .

Universal Clamps **Tension Plates**



Model
EK-72
(Sold in pairs)

For use with
10 ton and 4 ton tubing

Model
EK-74
(Sold in pairs)

Easy to use model EK-72 Universal Clamps attach in seconds to any panel edge! Exclusive swivel tube mounted on clamping bracket gives unmatched versatility. Swivel lets you apply pressure from most efficient angle. These tough anchor points with big 4" wide hardened steel jaws bite in for tight, safe grip! And Universal Clamps can be used in combination with Tension Plates in jacking setups. Just tighten a clamp on one edge of damaged area, solder Tension Plate to flat surface, set up ram and tubing in between and you're ready to repair the fast way!

New solder-on model EK-74 Tension Plates speed damage repair the same way as Universal Clamps—by returning damaged metal back to original contour from **outside** the car! New Tension Plates offer this Big Advantage! They can be used on Any panel . . . no gripping edges are necessary. They're made of tough cold formed steel with swivel tube mounted on a sheet metal base. Base easily bends to fit contour of body section. Tension Plates can be used again and again . . . last for years! And Tension Plates and Universal Clamps can be used in combination!

NEW

Bantam
Plates and Clamps
Same as above but for 4-ton tubing only.

Model
EK-79
(Sold in pairs)

Model
EK-78
(Sold in pairs)

Utilizing the
Blair Tension Method
(Patent Applied For)

DISTRIBUTED BY

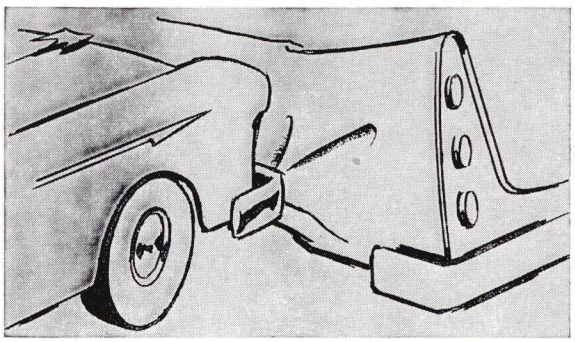
BLACKHAWK®

BLACKHAWK MFG. CO.
MILWAUKEE 46, WIS.

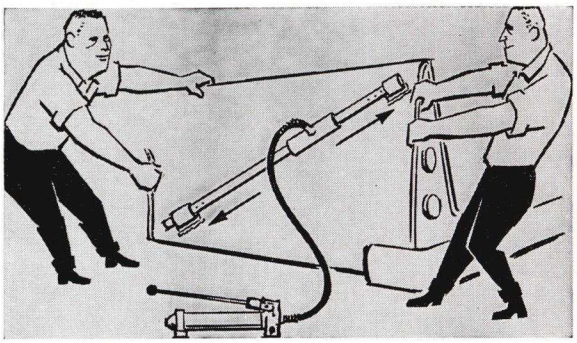
WORLD'S LARGEST MANUFACTURERS OF HYDRAULIC TOOLS!"

PROOF Universal Clamps, Tension Plates

External Pulling Easily Solves Tough Repair Problems

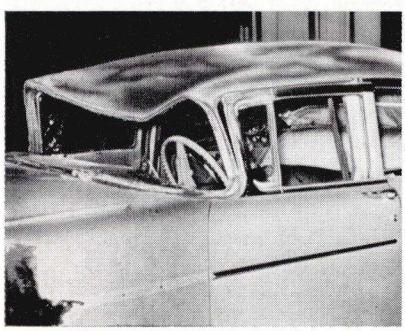


When a car is hit the sheet metal is drawn toward the center of impact. Hammering only causes more distortion. The repair job becomes tough and expensive. But not anymore!

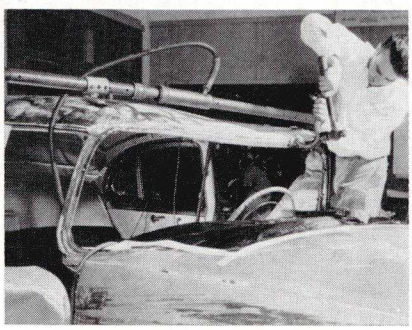


Porto-Power Universal Clamps and Tension Plates let you exert tremendous hydraulic pulling force **across** damaged area. Dents, grooves just pop back in shape, restoring original contour like magic!

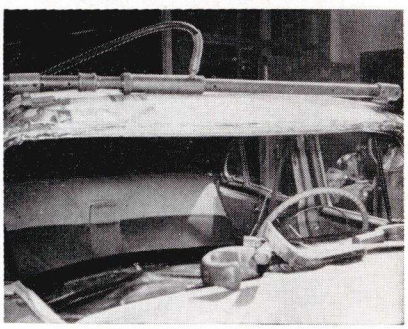
Here's How New Tension Plates Help You Repair A Tough Roof Job



Porto-Power **external** Tension Plates saved hours on this tough job! The roof was depressed 12 inches, **severely distorting** the pillars. Usually there would be lots of work ahead, but not with External Tension! Tension Plates eliminated costly multi-setups . . . made a tough job easy!

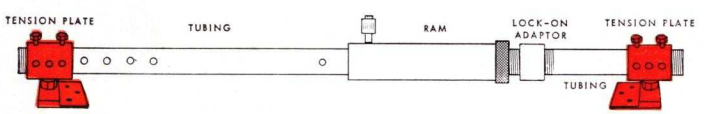


Tension Plates have been soldered to either side of damaged area. Porto-Power ram and tubing connect them. **Note:** The ram has been extended **only 2 inches,** but the roof was brought up **10 inches!** The pillars were brought back to their original shape in just minutes. Spring hammering helped relieve tension.

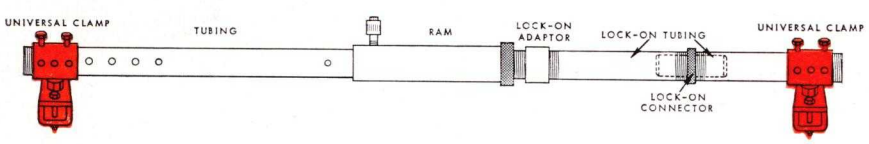


The roof is restored to original shape—ready for finish dollying. Porto-Power Tension Plates made this tough job quick, easy and safe with remote controlled pump! There's no need to stand in line of force. Tension Clamps up your volume and profits by letting you repair more, replace less.

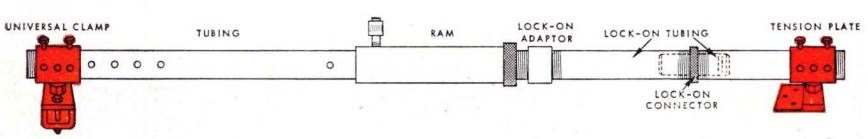
Here are basic setups showing how to use your regular Porto-Power with new Universal Clamps and Tension Plates!



Here's an example of a simple setup using a pair of Tension Plates as anchoring points. This setup includes lock-on tubing, hydraulic ram, lock-on adaptor and Tension Plates and is ideal for panels, hoods, roofs, fenders, pillars and doors.



This setup includes Universal Clamps as anchoring points on either end with Porto-Power tubing, ram, lock-on adaptor, and connector. Universal Clamps can be set up in seconds to any panel edge. Tight, rugged hardened steel jaws bite into sheet metal for safe, sure grip!



This is the same setup as above but Universal Clamps and Tension Plates are used at opposite ends of the hookup. Clamps and Plates can be used in combination for every sheet metal straightening job, anywhere around the car.

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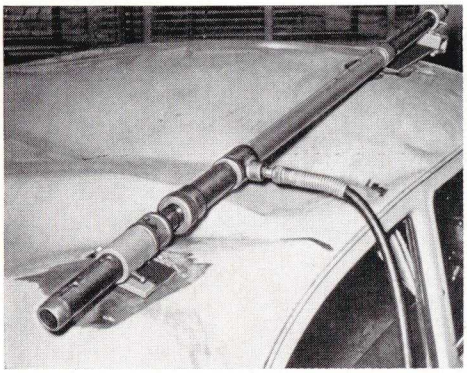
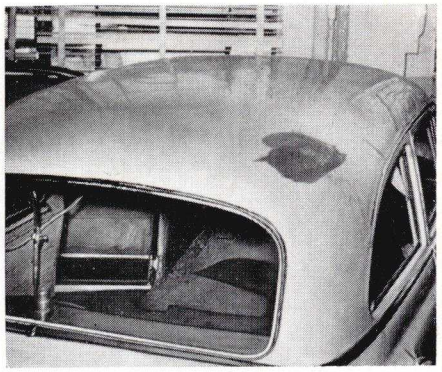
Slash Job Time...Increase Volume, Profit!

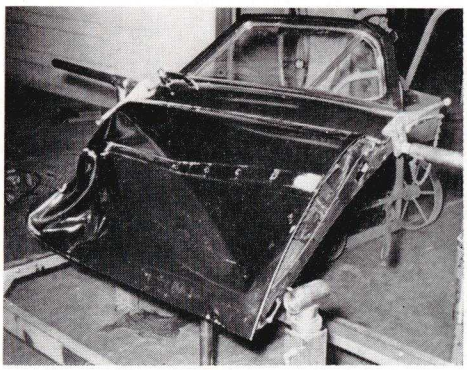


Soldering new Porto-Power Tension Plates to outer edge of damage is fast, easy! Illustration shows Porto-Power ram and tubing in position. Here's plenty of gripping and pulling power—all you need to make severe damage like this disappear in a hurry!

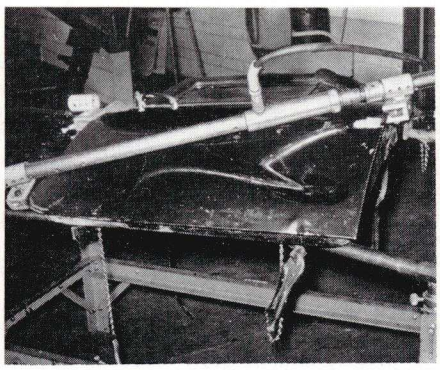
A stroke or two on the Porto-Power pump —and the damage starts to unfold! Porto-Power external tension lets you exert force right where it's needed . . . to slash repair time, boost volume and profits like nothing else can!



A few more strokes on the pump, a little spring hammering—and the damage is completely gone. Tension Plates are removed in seconds, without a trace of distortion. Efficiency like this puts big figures in your profit column!



This is a severe case of door damage—almost impossible to repair with conventional methods. But Porto-Power External Tension restores original contour quickly, easily, **profitably!** Illustration shows door in position, ready for Universal Clamps and Porto-Power tubing.



Spring hammering, with the metal under Porto-Power tension, helps unfold sharp creases . . . restores damaged door to "like-new" condition in record time! Porto-Power lets you apply just the right amount of force—then **keeps holding** while you work metal!

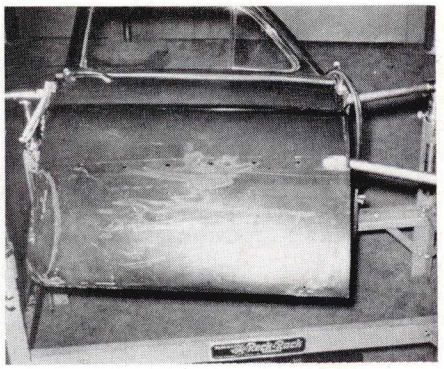
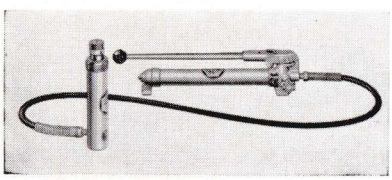
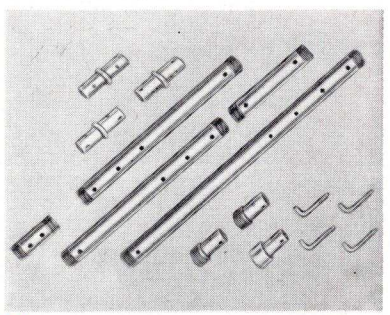


Illustration shows door completely roughed out and metal-finished, all ready to paint. Porto-Power External Tension helps repair instead of replace . . . puts more "money jobs" in your shop! There's no limit to the versatility of these terrific new tools! Use 'em on hoods, trunks, roofs, doors . . . **anywhere** on the car!

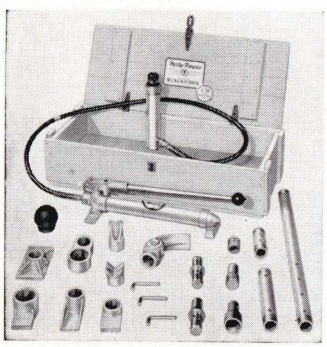
Here are more Porto-Power tools to use with Universal Clamps and Tension Plates



S-71 10-Ton Hydraulic Unit—The source for smooth hydraulic power for all your automotive body needs. Includes P-76 pump, Z-913 six-foot hose with exclusive Spee-D-Coupler and RC-159 10-ton ram.



FZ-14 Lock-On Tubing—Contains 15 vital units to speed all body repairs! Made of high quality steel Lock-On Tubing, cuts job time both in direct and normal offset applications.



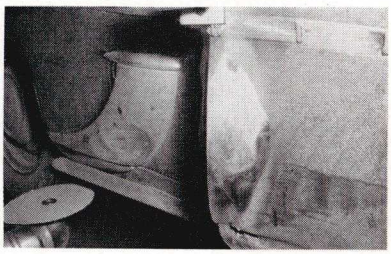
FZ-59 Junior Body Assortment—Select Porto-Power equipment including S-71 hydraulic unit for major body reconditioning. Push, Pull, Spread, Clamp with this versatile assortment.

EK-10 Pull-Dozer—Pull out damage from exact point of impact from outside the car! Constructed of tough aluminum . . . completely portable. Includes complete set of attachments.

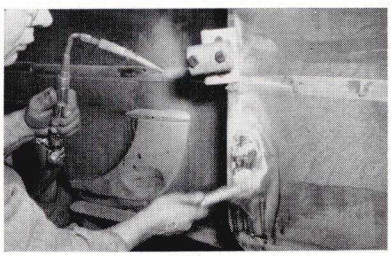
Tension Plates are Easy to Attach

With disc sander, remove paint from area selected for attachment of tension plate. Wipe or sand off dust.

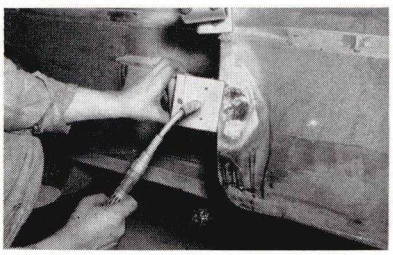
Tin plate with any good commercial flux and solder or ground lead, making sure entire area that will be attached is covered.



Tin area where Tension Plate is to be attached. Be sure entire area is covered before applying body solder to panel surface.



Using torch to provide heat, apply enough body solder to panel surface to cover base of Tension Plate . . . about 3/8" thick.



With torch, apply heat to both solder and Tension Plate until solder is workable. (Corner of Tension Plate provides handy tool to gauge softness).

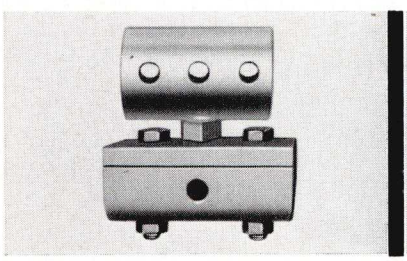
Immediately press tension plate into molten solder. **Quickly** apply wet rag or sponge to base of plate to eliminate heat distortion.

To Remove Tension Plates

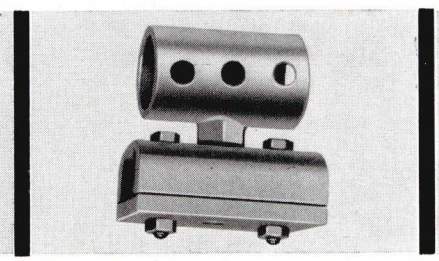
1. Direct torch flame at base of plate until loose; lift Tension Plate off.
2. With torch, heat solder to melting point and scrape off with paddle or edge of Tension Plate.
3. Wipe remaining solder off with dry rag.

That's all there is to it! New Tension Plates go on in seconds . . . stay on even for the hardest pulls . . . come off in a flash for the fastest repairs ever! You'll save real money with this valuable, versatile tool. Now, bid lower for **more** volume, **greater** profit!

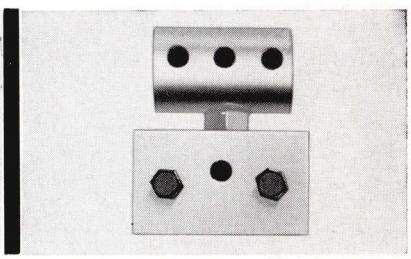
Universal Clamps for Doors, Fenders, Panels



For most jobs you'll use the Universal Clamp in this position. It's tops for door and fender work where clearance is unnecessary. A safe, tight grip "bites in" and holds. Large screws provide high holding power.



Set your clamp like this when you need extra clearance. Just switch the swivel tubular bracket from top plate to base. Takes less than one minute and you're ready to work. Reaches over framework, high folds or crowns!



Here's real versatility for pulling lengthwise along panel edge. Bracket is mounted at rear of shell . . . gives maximum clearance. The hydraulic ram is out of the way for hammering and dollying while sheet metal is under tension.

Complete information on autobody repair work using Blackhawk Porto-Power is available to you at no charge. Write for Catalog P-51.

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